

30. (Twice amended) A cell transfected with a nucleic acid sequence encoding at least one epitope, wherein said nucleic acid sequence is selected from the group consisting of SEQUENCE ID NO 1, SEQUENCE ID NO 2, SEQUENCE ID NO 3, SEQUENCE ID NO 4, SEQUENCE ID NO 5, and complements thereof encodes a polypeptide, wherein said polypeptide comprises an amino acid sequence having at least 90% identity to an amino acid sequence selected from the group consisting of SEQUENCE ID NO 17, SEQUENCE ID NO 18, SEQUENCE ID NO 19, and SEQUENCE ID NO 20 [and amino acid sequences comprising at least about 10 contiguous amino acids derived from any of these sequences].

33. (Twice amended) A composition of matter comprising a purified polynucleotide, wherein said polynucleotide has at least 50% identity with a polynucleotide [is] selected from the group consisting of SEQUENCE ID NO. 1, SEQUENCE ID NO. 2, SEQUENCE ID NO. 3, SEQUENCE ID NO. 4, SEQUENCE ID NO. 5, sequence 819141, and complements thereof.

38. (Twice amended) A purified polynucleotide which codes for a polypeptide which comprises an amino acid sequence with at least 90% identity to an amino acid sequence selected from the group consisting of SEQUENCE ID NO 17, SEQUENCE ID NO 18, SEQUENCE ID NO 19, SEQUENCE ID NO 20, [and amino acid sequences comprising at least about 10 contiguous amino acids derived from any of these sequences].

39. (Twice amended) A purified polynucleotide comprising a polynucleotide sequence having at least 90% identity with a polynucleotide selected from the group consisting of SEQUENCE ID NO 1, SEQUENCE ID NO 2, SEQUENCE ID NO 4, SEQUENCE ID NO 5, sequence 819141, and complements thereof.

#### REMARKS

The Examiner states that the priority date awarded claims 10-16, 25, 30, 33, 35, 38 and 39 is the filing date of the present application, June 5, 1998 based on a lack of

written description of full length sequences, for instance SEQ ID NO. 5 and SEQ ID NO. 17. Specifically, the Examiner states that a search of the parent application reveals that the consensus sequence in the parent is SEQ ID NO. 3 and nucleotide sequence 819141 in the parent is SEQ ID NO. 2; comparing instant SEQ ID NO. 5, parent SEQ ID NO. 3 possesses a nucleotide change at position 313 and parent SEQ ID NO. 2 possesses two nucleotide changes at residues 12 and 247 (corresponding to nucleotides 78 and 313 of instant SEQ ID NO. 5). The Examiner concludes that the priority date awarded instant claims is the instant filing date June 5, 1997.

Applicant is confused due to the fact that the Examiner has given the instant claims two differing priority dates - June 5, 1998 and June 5, 1997. Applicant will assume that Examiner means to give priority only to the filing date of the instant application which is June 5, 1998.

If this is what the Examiner has intended, then Applicant vigorously disagrees. Nucleotide positions 1-329 of instant SEQ ID NOS. 4 and 5 are identical to SEQ ID NO. 3 of the parent. The nucleotide changes described by the Examiner at positions 12, 247 and 313 in the parent are actually designated as "N" in the parent. According to IUPAC-IUB codes for nucleotide, "N" can be "A", "C", "G" or "T/U" (see attached Exhibit A). Therefore, the Examiner's rejection is not appropriate because any of the four base pairs described in the child case have been contemplated by the parent. It is requested that the Examiner withdraw her rejection.

The priority date for the remaining sequences (i.e. 329-763) is June 25, 1997 due to the fact that SEQ ID NO. 4 was deposited at the ATCC on that date and given ATCC #329763.

The Examiner further states that the amendment filed November 30, 1999 is objected to under 35 U.S.C. § 132 because it introduces new matter into the disclosure and that the added material which is not supported by the original disclosure is as follows: on page 55, in line 29, after "(SEQ ID NO. 5)." The insertion of Sequence 819141 corresponds to nucleotide positions 66-329 of the consensus sequence.

Applicant has cancelled this language in an effort to expedite prosecution. However, Applicant is of the opinion that this information is in the parent application and is not new matter with respect to this application.

Claims 10-14, 33, 39 and 48-55 are rejected under 35 U.S.C. § 112, first paragraph as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s),

at the time the application was filed, had possession of the claimed invention. Specifically, the Examiner states that claims 10-14, 33 and 48-55 are drawn to sequence 819141 which corresponds to nucleotide positions 66-329 of the consensus sequence, instant SEQ ID NO. 5. Again, the Examiner states that search of the parent application reveals that the consensus sequence in the parent is SEQ ID NO. 3; nucleotide sequence 819141 in the parent is SEQ ID NO. 2; and that in comparison to instant SEQ ID NO. 5, parent SEQ ID NO. 3 possesses a nucleotide change at position 313 and parent SEQ ID NO. 2 possesses two nucleotide changes at residues 12 and 247 (corresponding to nucleotides 78 and 313 of instant SEQ ID NO. 5). Thus the Examiner concludes, the parent application fails to provide written description support for residues 66-2329 of instant SEQ ID NO. 5 as is instantly claimed by reference to sequence 819141. Based on the aforementioned arguments, it is respectfully requested that this rejection be withdrawn.

Claims 25 and 30 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Specifically, the Examiner states that the preamble recites a polypeptide comprising at least one epitope and that the skilled artisan recognizes an epitope as a region recognized by an antibody which is 6 amino acids, 18 nucleotides in length, as evidenced by Harlow & Lane, Antibodies, p. 76, lines 22-23, and subsequence recites at least about 10 contiguous amino acids derived therefrom. Therefore, the Examiner concludes that the metes and bounds of the claim are indefinite to the skilled artisan. In addition, the Examiner states that the method of claim 25 and the transfected cell of claim 30 appear to be incomplete since the host cells and transfected cells are not incubated under conditions sufficient to produce said polypeptide.

Applicant has amended the aforementioned claims to delete the size limitation of the epitope and added sufficient incubation language. Thus, it is requested that this rejection be withdrawn.

Claims 10-14, 35 and 48-55 are rejected under 35 U.S.C. § 102(b) as being anticipated by and also on sale and publicly used from Boehringer Mannheim Biochemical, 1991 catalog, page 557. The Examiner states that claim 10 is drawn to test kits and polynucleotides comprising sequences that specifically bind to polynucleotides selected from the group consisting of SEQ ID NO. 1, sequence 819141 and complements thereof and Boehringer teaches and sells random hexamer primers capable of detecting any polynucleotide sequence via binding thereto which is available in a container.

The Applicant has amended the claims to delete the “hybridizing” language and therefore, it is respectfully requested that the Examiner withdraw this rejection.

Claims 10-16, 35, 38, 45, 46 and 48-55 are rejected under 35 U.S.C. § 102(b) as being anticipated by Hillier, *et al.*, EST Database Accession No. AA195677 alignment, 19 May, 1997. Specifically the Examiner states that claims 10-16, 25, 30, 35, 38 and 45-55 are drawn to polynucleotide sequences which bind to or encode contiguous amino acids of SEQ ID NOS. 1-5, sequence 819141, and SEQ ID NOS. 17-20 alleging Hillier, *et al.* teach nucleotides which bind to or encode contiguous amino acids selected from the group consisting of SEQ ID NOS. 1-5, sequence 819141 and SEQ ID NOS. 17-20, see alignment with SEQ ID NO. 17, amino acids 102-117, backtranslation to nucleic acids 460-413 and thus, the reference teachings anticipate the claimed invention.

Applicant hereby submits a 1.131 declaration which illustrates the instant inventors pre-date the Hillier reference. Therefore, it is respectfully requested that this rejection be withdrawn.

Claims 10-16, 35, 38 and 45-55 are rejected under 35 U.S.C. § 102(a) as being anticipated by Hillier, *et al.* EST database sequence accession AA456370, (see also IDS citation AI-1), June 6, 1997, aa14e02.rl Soares NhHMPu S1 Homo sapiens cDNA clone 813242, 5' mRNA sequence. The Examiner states that claims 10-16, 25, 30, 35, 38 and 45-55 are drawn to polynucleotides which bind and encode contiguous amino acids, expression vectors and host cells containing such polynucleotides of SEQ ID NO's. 1-5, 17-20 and sequence 819141.

Again, based on the submitted 1.131 declaration which removes Hillier AA456370 as a reference, it is respectfully requested that this rejection be withdrawn.

Claims 10-16, 25, 30, 35, 38 and 45-55 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hillier, *et al.*, EST database sequence accession AA456370, (see also IDS citation AI-1), June 6, 1997, aa14302.rl Soares NhHMPu S1 Homo sapiens cDNA clone 813242, 5' mRNA sequence, or Hillier, *et al.* EST Database Accession No. AA195677 alignment, 19 May, 1997 in view of Expression of Cloned Genes in E. coli, Sambrook, *et al.*, Cold Spring Harbor Laboratory, 1989. Again, based on the submitted 1.131 declaration which removes Hillier as a reference, it is respectfully requested that this rejection be withdrawn.


**CONCLUSION**

In view of the aforementioned amendments and remarks, the aforementioned application is in condition for allowance and Applicant requests that the Examiner withdraw all outstanding objections and rejections and to pass this application to allowance.

Respectfully submitted,

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